

Claude, I've given much thought to the Pryor/Markey bill and the FCC NOI on the topic of VRS for TDI to consider as inputs ( I would imagine you've considered most of them, anyway). If you want to discuss my thoughts some more that's fine and it can wait until we meet for lunch on the 21st. By the way, if TDI has already submitted inputs, I'd like to read them before I send my individual inputs to them. Best, Paul

For clarity, I've separated the inputs to numbered paragraphs accompanied with comments or background information.

# 1. Submitted data were obtained from the THE SURVEY OF INCOME AND PROGRAM PARTICIPATION (SIPP).

SIPP is one of a few national surveys that regularly collects data identifying the American population of persons with hearing loss or deafness. Estimates from the SIPP indicate that fewer than 1 in 20 Americans are currently deaf or hard of hearing. In round numbers, nearly 10,000,000 persons are hard of hearing and close to 1,000,000 are functionally deaf. More than half of all persons with hearing loss or deafness are 65 years or older and less than 4% are under 18 years of age. However, these findings are limited to those who report difficulty hearing "normal conversation" and do not include the larger population of persons with hearing loss for which only hearing outside the range and circumstances of normal conversation is affected. Policy makers, communications technology manufacturers, health and education service providers, researchers, and advocacy organizations have an interest in these results.

The below table illustrates population by level of difficulty hearing normal conversation by age groups.

Levels are:

- (A) No difficulty hearing normal conversation without an hearing aid
- (B) No difficulty hearing normal conversation with an hearing aid
- (C) Some difficulty in hearing normal conversation with hearing aid
- (D) Unable to hear conversation even with hearing aid
- (E) Person is deaf

Level	Age 6-17	18-44	45-64	65+	Total
A	50,344,058	108,963,853	65,012,397	28,316,169	252,636,477
B	45,424	145,556	397,198	1,911,879	2,500,057
C	242,666	965,050	2,254,920	3,732,333	7,194,969
D	12,866	144,984	182,559	503,538	813,947
E	24,108	102,146	42,515	10,783	179,552

TOTAL	50,669,122	110,291,589	67,889,589	34,474,702	263,325,0022.
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2. Discussions about the demography of deafness from the SIPP need to be limited to three groups of persons: hearing, hard of hearing, and functionally deaf. Persons who are considered hearing are those with no difficulty hearing normal conversation and who do not use a hearing aid. Persons who are hard of hearing are those who either have no difficulty hearing normal conversation but do wear a hearing aid or have some difficulty hearing normal conversation (regardless of hearing aid use). Persons who are functionally deaf are those who indicated they are either deaf or unable to hear normal conversation at all (even when using a hearing aid). The SIPP includes too few respondents in some or all age groups for those identified as deaf or as having no difficulty hearing normal conversation when wearing a hearing aid, which means that reliable estimates cannot be obtained at this level of detail. Consequently, grouping respondents as hearing, hard of hearing, or functionally deaf is the best that the SIPP has to offer. For brevity, Levels C,D, or E will be used to describe those who may benefit from the Markey/Pryor bill (S 3304) and new orders from the FCC. For this paper, the designation "deaf" will refer to those levels.

3. The Video Phone (VP) is currently available gratis, including installation, from several manufacturers to the deaf. A broadband Internet connection is required. Over the Internet, the VPs make it possible for the deaf to visualize one another and communicate using either sign language, lipreading, or both. Voice may be used at times for those who may benefit. The manufacturers underwrite such expenses with their own Video Relay Services (VRS) through which the deaf communicate with the hearing via a third party serving as a sign language interpreter. Interpreter minutes are recorded and submitted to NECA, a membership association of U.S. local telephone companies for reimbursement.

However, if a hearing person wishes to communicate directly with a deaf person (a family member or an employer for example) the visual process is made possible by the purchase and installment of a VP at the hearing person's location. Usually, the hearing person such as an employer who works alongside the deaf person daily may be intimately familiar with his/her communication nuances and may not need an interpreter. In many situations, this could improve the deaf employee's functional equivalence and render him/her more valuable in the workplace. The same can be said for bringing the deaf person closer to his/her family as direct communications foster intimacy.

The process of purchasing and installing a VP at the hearing person's location may be technically challenging. In addition, an internet connection with sufficient broadband would be needed. Several of the VP manufacturers are reluctant to sell their VPs. A few will not sell, period. There are reasons for this reluctance. Installation requires trained manpower and is expensive. It goes without saying that more direct VP communications will reduce interpreter minutes which in turn will bring less

revenue and/or require an increase in interpreter usage minute rates.

4. My opinion is that given the large population of the deaf (some 8 million from Levels C,D, and E) and my personal experience and observation of the deaf subculture in America, the VRS is grossly underutilized. It took the deaf at least thirty years to grow from the mechanical teletypewriters in the late 1960's to the pagers, emails, and instant message on the Internet in this present age. The VRS should grow rapidly perhaps some five-fold in five years from now.

Therefore, I propose that hearing people have an easier opportunity to join the VP network. Most of those who join will use the VRS and will have their faces shown on the deaf person's new split-screen VP alongside the interpreter. It is the most natural setting for a deaf person since he/she will see both the interpreter and the hearing person. The conversation will be enhanced more with the many visual nuances emanating from the face of the hearing person.

Lastly, the functional equivalence of the deaf caller will increase and result in his/her closer proximity to the rest of the world, translating into more job opportunities, greater employment mobility, closer family ties, and maybe the most importantly, the increased self-confidence innately within the caller.

5. One may argue that expanding the VP network is too expensive especially from NECA's viewpoint. The pro-rata VRS minutes should remain the same for the following reasons:

a) The average minutes per call may decline slightly due to the improved communication environment with the split-screen. Simply stated, it takes less time when one can see the other person on the VP. It's like two people listening to a conversation and drawing conclusions from its tonal qualities.

b) Many deaf people are expert lipreaders and speak rather well, especially those who are post-lingually deaf. The conversation can proceed rather rapidly while the interpreter stands by ready to assist in certain situations when the conversation gets complicated. Another plus for reducing the average minutes per call.

c) Conversation among hearing members of the family and immediate employees at work who are familiar with the deaf person's speech and/ or signs may not need an interpreter and thus, zero minutes for this type of call. In rare situations when an interpreter is needed, either the caller or the recipient can push a button on the re-designed VP to reach VRS without disconnecting the call.

d) Savings from reduced minutes could be financial incentives for VRS to re-design VPs to make them all inter-operational and less confusing to VP users. The present configuration of VPs are, as we are well aware of, an amalgam of sizes, shapes, and function buttons which do not contribute to the ease of visual communications.

e) The cost of VP?s should be affordable to those who wish to purchase one. Safeguards should be built in them to prevent unauthorized use on the telephone network and the Internet. The present system of VRS giving VPs to the deaf people should remain the same.

6. Today, many and large rural areas still do not support broadband. This is a very important concept that should not be overlooked ! We need to look at this more intensively especially now that today?s 3G and 4G technology is just around the corner in many urban areas. The deaf people do not deserve to be isolated by location. This isolation defeats functional equivalence among the disabled and does not correspond to the sentiment of the ADA.

7. In closing, the concept of functional equivalence as supported by the ADA some twenty years ago needs to be reiterated with the vast technological changes over time. To date, progress has been made and many deaf people have moved upwards in employment towards more satisfying lives. Nowadays, we have pagers, emails, and very soon, video pagers which may be an accessory to the desktop VP?s. Equipment is getting smaller but the controls still need to be standardized, user friendly, and cost effective for everyone.